

## ENCLOSURE

### EPA REGION 7'S REVIEW OF THE MISSOURI 2004/2006 CLEAN WATER ACT SECTION 303(D) LIST

The purpose of this review document is to provide EPA's rationale for approving certain delistings from Missouri's Clean Water Act (CWA) Section 303(d) list. EPA is continuing to review the State's data and assessment for the remaining water bodies not addressed by this letter. EPA's review of Missouri's 303(d) list is based on EPA's analysis of whether the State reasonably considered existing and readily available data and information and reasonably identified waters required to be listed by the CWA and EPA regulations (40 CFR § 130.7). The following is a list of acronyms used in this review document:

BOD	Biological (Biochemical) Oxygen Demand
CBOD	Carbonaceous BOD
CFR	Code of Federal Regulations
CWA	Clean Water Act
DO	Dissolved Oxygen
FR	Federal Register
IRG	Integrated Report Guidance
MDNR	Missouri Department of Natural Resources
NFR	Non Filterable Residue
PCBs	Polychlorinated Biphenyls
PIL	Permit In Lieu of a TMDL
TMDL	Total Maximum Daily Load
VSS	Volatile Suspended Solids
WBID	Water Body Identification
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant

#### A. Statutory and Regulatory Background

##### A.1. Identification of Water Quality Limited Segments for Inclusion on the Section 303(d) List

Section 303(d)(1) of the CWA directs states to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standards (WQS), and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by federal, state, or local authority, and (3) other pollution control requirements required by state, local, or federal authority. See 40 CFR § 130.7(b)(1).

### A.2. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, states are required by 40 CFR § 130.7(b)(5) to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. In addition to these minimum categories, states are required to evaluate any other water quality-related data and information that are existing and readily available. EPA's *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA Office of Water, 1991, Appendix C) describes categories of water quality-related data and information that may be existing and readily available. While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring states to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR § 130.7(b)(6) require states to include as part of their submittals to EPA documentation to support decisions to use or not use particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

### A.3. Priority Ranking

EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the CWA that states establish a priority ranking for listed waters. The regulations at 40 CFR § 130.7(b)(4) require states to prioritize waters on their Section 303(d) list for TMDL development and identify those targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. As long as these factors are taken into account, the CWA provides that states establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA's 1991 Guidance cited above. EPA reviews but does not take action to approve or disapprove the priority ranking.

## B. Analysis of Missouri's Submission

### B.1. Identification of Water Quality Limited Segments for Inclusion on the Section 303(d) List

As noted above, EPA is taking action on Missouri's 2004/2006 Section 303(d) list submission in two parts. This first action focuses on several water body/pollutant pairs that Missouri included on its 2004/2006 list, water body/pollutant pairs that have an EPA-approved TMDL or PIL, and several water body/pollutant pairs that Missouri provided "good cause" for delisting. The second action will address the remaining water body/pollutant pairs that Missouri included on its list and address the State's assessments of waters and pollutants it decided not to list. If necessary, EPA will identify additional waters for inclusion on the Section 303(d) list and provide an opportunity for the public to comment.

EPA has partially reviewed Missouri's submission and has concluded that for those water bodies and corresponding pollutants addressed by this action the State developed its Section 303(d) list in compliance with Section 303(d) of the CWA and 40 CFR § 130.7. EPA's review is based on its analysis of whether the state reasonably considered existing and readily available water quality-related data and information and reasonably identified waters to be listed (see below). EPA partially approves Missouri's 2004/2006 CWA Section 303(d) list and defers action on the remaining water bodies and associated pollutants. This letter approves the listing of the water bodies and corresponding pollutants identified in Table 1 below.

Table 1. List of water bodies and corresponding pollutants that EPA is approving for inclusion on Missouri's 2004/2006 Section 303(d) list.

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>	<b>First Year on 303(d)</b>
Blue River	417	4.0	Jackson	Bacteria	2006
Blue River	418	9.0	Jackson	Bacteria	2006
Blue River	419	9.0	Jackson	Bacteria	2006
Brush Creek	1371	4.0	Polk	Low D.O.	2002
Capps Creek	3234	4.0	Newton	Bacteria	2006
Cave Spring Branch	3245U	0.2	McDonald	Nutrients	1998
Crooked Creek	1928	3.5	Crawford	Cadmium, Lead	2006
Dousinbury Creek	1180	3.5	Dallas	Bacteria	2006
East Fork Grand River	457	25.0	Gentry	Bacteria	2006
Grand River	593	60.0	Chariton	Bacteria	2006
Gravois Creek	1712	2.0	St. Louis	Bacteria	2006
Gravois Creek	1713	4.0	St. Louis	Bacteria	2006
Grindstone Creek	1009	1.5	Boone	Bacteria	2006
Hinkson Creek	1007	6.0	Boone	Unknown	1998
Indian Creek	420	3.0	Jackson	Bacteria	2002
Indian Creek	1946	1.5	Washington	Lead, Zinc	2002
Lamine River	847	54.0	Cooper	Bacteria	2006
Lewistown Lake	7020	29.0	Lewis	Atrazine	2002

Water Body Name	WBID	Length (mi) /Area (acres)	County	Pollutant	First Year on 303(d)
Little Muddy Creek, Tributary to	3490	0.4	Pettis	Color, Chloride	1998
Lost Creek	3278	8.5	Newton	Bacteria	2006
Middle Fork Grand River	468	25.0	Gentry	Bacteria	2006
No Creek	550	22.5	Grundy	Bacteria	2006
Pickle Creek	1755	7.0	Ste. Genevieve	pH	2006
Saline Creek, Tributary to	2859U	1.0	Madison	Nickel	2006
Shaw Branch	2170	2.0	St. Francois	Cadmium, Lead	1994
Strother Creek	2751U	1.0	Reynolds	Zinc	2006
Table Rock Lake	7313	43100	Stone	Nutrients	2002
Turkey Creek	3216	7.0	Jasper	Cadmium	2002
Village Creek	2863	1.5	Madison	Inorganic Sediment, Manganese, Lead	2006
Watkins Creek	1708	3.5	St. Louis	Bacteria	2006
West Fork Medicine Creek <sup>i</sup>	623	40.0	Mercer	Unknown	2006
Willow Fork, Tributary to	956	0.5	Moniteau	Low D.O.	2006

## B.2. Consideration of Existing and Readily Available Water Quality-Related Data and Information

Missouri used its *Methodology for the Development of the 2006 Section 303(d) List in Missouri* to develop its 2004/2006 submission. This listing methodology document provides a detailed explanation of the data generated by MDNR's monitoring program; describes the procedures and methods for collecting data from other federal agencies, state agencies, universities, and monitoring networks; lists the supporting laboratories; and lists other data sources MDNR uses for compiling the State's 305(b) report and 303(d) list. The document also explains how MDNR considers and evaluates each type of data for listing purposes.

## B.3. Priority Ranking

In its submission, Missouri included a schedule for completing TMDLs for those waters still needing a TMDL and identified goal years for development through 2018. The listing methodology document submitted with Missouri's list details the process by which MDNR ranks waters for TMDL development and states that the TMDL schedule represents MDNR's priority ranking. See *Methodology for the Development of the 2006 Section 303(d) List in Missouri*. As such, EPA understands that the TMDL development schedule serves as the State's priority

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<sup>i</sup> West Fork Medicine Creek was previously listed as impaired by sediment. EPA developed and established a TMDL to address the sediment impairment and, as such, West Fork Medicine Creek is appropriate for delisting and placement in Category 4A for sediment. See section C.1 of this document. Missouri has decided to include West Fork Medicine Creek on its 2004/2006 Section 303(d) list as impaired by unknown pollutant(s). EPA approves the State's decision to include this water body and corresponding pollutant on its 303(d) list.

ranking as required by federal regulations at 40 CFR § 130.7(b). EPA is not taking action on these schedules as federal regulations do not require EPA approval of priority rankings or schedules.

#### B.4. Listing of Waters Impaired by Nonpoint Sources

Based solely on an evaluation of the final Missouri 2004/2006 Section 303(d) list, EPA concludes that Missouri listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and EPA guidance. EPA believes that Section 303(d) of the CWA provides ample authority to require Missouri to list waters impaired solely by nonpoint source pollutants. There is no expressed exclusion of the nonpoint source impaired water bodies in the CWA. EPA's belief that Section 303(d) applies to nonpoint sources is also consistent with the CWA definition of the term "pollutant" and Congress' use of that term in other sections of the CWA, such as Section 319 and Section 320. Therefore, Section 303(d) lists are to include all water quality limited segments still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources.

#### B.5. Public Comments

MDNR provided several opportunities for public participation and comment in finalizing the Missouri 303(d) list. Missouri posted their final draft 2004/2006 Section 303(d) list for a 90-day public comment period, held five public meetings in five separate locations across the State, and held a public hearing. Missouri evaluated and responded to each public comment and, where deemed appropriate, incorporated suggested changes into their 2004/2006 Section 303(d) list. Missouri included copies of comments and Missouri's response with their list submission.

### **C. Approved Delistings**

In its *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* (known as the Integrated Report Guidance, or IRG), the EPA describes what constitutes "good cause" for removing a water body from the 303(d) list, which is comprised of waters identified for inclusion in Category 5 of a state's Integrated Report. As is further described in the IRG, consistent with 40 CFR § 130.7(b), "good cause" for not including segments on the 303(d) list may be based on the following determinations:

- New information or more sophisticated water quality modeling is available that demonstrates that the applicable WQS(s) is being met.
- Flaws in the original analysis of data and information led to the segment being incorrectly listed.
- Effluent limitations required by state or local authorities that are more stringent than technology-based effluent limitations, required by the CWA, will result in the attainment of WQS for the pollutant causing the impairment (pursuant to 40 CFR § 130.7(b)(1)(ii)).

- Other pollution control requirements required by state, local, or federal authority will result in attainment of WQS within a reasonable period of time (pursuant to 40 CFR § 130.7(b)(1)(iii)).
- Documentation that the state included on a previous Section 303(d) list an impaired segment that was not required to be listed by EPA regulations, e.g., segments where there is no pollutant associated with the impairment.
- The water body and pollutants are addressed in a TMDL approved or established by EPA.

States may assign waters to Category 4 if available data and/or information indicate that one or more designated uses are not being attained or are threatened, but a TMDL is not needed. States may place these water bodies in one of the following three subcategories:

*Category 4A:* An EPA-approved TMDL has been established to address the water body and pollutant.

*Category 4B:* Alternative pollution controls required by local, state, or federal authority are sufficiently stringent and expected to achieve WQS within a reasonable period of time. One example of such controls is an EPA-approved state National Pollutant Discharge Elimination System (NPDES) Permit in Lieu (PIL) of a TMDL.

*Category 4C:* Impairment not caused by a pollutant, but instead caused by other types of “pollution,” as defined by the CWA. Development of TMDL is not required.

#### C.1. Category 4A – Waters with EPA-Approved TMDLs

The water bodies in Table 2 are appropriate for placement in Category 4A as a TMDL has been completed and approved by EPA. These water bodies no longer require the development of a TMDL, consistent with 40 CFR § 130.7(b), and as such, EPA approves the removal of these water bodies from the 303(d) list. In the December 2003 *Revised US EPA Consolidated 2002 Missouri 303(d) List*, EPA included several water bodies and pollutants with approved TMDLs at the time the 2002 list was finalized. For completeness, Table 2 includes any water that was included in the *Revised US EPA Consolidated 2002 Missouri 303(d) List* and has an approved TMDL.

Table 2. Water bodies with EPA-approved TMDLs, which are appropriate for placement in Category 4A.

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>
Barker's Creek Tributary	1029U	0.3	Henry	pH, sulfate
Big Creek	1250	49	Henry	Sediment
Big Creek	2916	4	Iron	Metals
Big Muddy Creek	436	8	Daviess	Sediment
Big Otter Creek	1224	1	Henry	pH
Big Otter Creek, Tributary to	1225	1	Henry	pH
Big Sugar Creek	3250	31	McDonald	Nutrients

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>
Blackbird Creek	653	10.5	Putnam	Sediment
Blue River	417	4	Jackson	Chlordane
Blue River	418	9	Jackson	Chlordane
Blue River	419	9	Jackson	Chlordane
Blue River	421	2	Jackson	Chlordane
Brushy Creek (Fork)	859	1	Pettis	BOD, Ammonia, NFR
Brushy Creek	1592	0.4	Texas	BOD, VSS
Buffalo Creek	3269	10	McDonald	Nutrients
Buffalo Creek	3273	5.5	McDonald	Nutrients
Cedar Creek	737	1	Callaway	Sulfate
Cedar Creek	737	4	Callaway	pH, sulfate
Center Creek	3203	11	Jasper	Zinc
Clear Creek	1336	18	Vernon	Sediment
Clear Creek	3239	2	Lawrence	BOD, NFR, Ammonia
Creve Coeur Lake	7255	300	St. Louis	Chlordane
Dark Creek	690	8	Randolph	Sulfate
Davis Creek	912	2	Lafayette	Low DO attributed to BOD, Ammonia, Nutrients
Douger Branch (Chat Creek)	3168	2	Lawrence	Zinc
East Fork Medicine Creek	619	36	Grundy	Sediment
East Fork Tebo Creek	1282	1	Henry	pH
Eleven Point River	2604	0.4	Howell	Chlorine
Elk River	3246	21.5	McDonald	Nutrients
Flat Creek <sup>ii</sup>	865	20	Pettis	Sediment
Goose Creek	2860	0.5	Madison	Nickel, Cobalt
Honey Creek	554	23	Livingston	Sediment
Honey Creek	1251	3	Henry	Sulfate
Howell Creek	2582	0.3	Howell	Chlorine
Indian Creek	3256	26	McDonald	Nutrients
Jack's Fork River	2681	7	Shannon	Fecal Coliform
James River	2347	28	Stone	Nutrients, Unknown
James River	2362	26	Christian	Nutrients, Unknown

<sup>ii</sup> Segment Length: Missouri revised and EPA approved revised water quality standards that changed the segment length for Flat Creek to 21.8 miles. As noted in EPA's April 28, 2006 letter to MDNR, Missouri has explained that use of more precise measurement tools results in increased segment lengths, despite the fact that the legal descriptions do not change. At the time Flat Creek was placed on the 303(d) list, the regulations listed the segment as 20 miles in length. The EPA-approved TMDL contains the old length, but the legal description is consistent with the entire classified segment in Missouri's QWS regulations. Because the regulatory revision resulted from increased measuring precision and not an actual change in the protection offered to the classified segment and because the legal description is consistent with the regulations, the TMDL continues to apply to the entire classified segment.

Pollutant: Flat Creek was previously listed as impaired by sediment. EPA developed and established a TMDL to address the sediment impairment and, as such, Flat Creek is appropriate for delisting and placement in Category 4A for sediment. Missouri has decided to include Flat Creek on its 2004/2006 Section 303(d) list as impaired by unknown pollutant(s). EPA will address the listing for unknown pollutant(s) in its second decision on Missouri's submission.

Water Body Name	WBID	Length (mi) /Area (acres)	County	Pollutant
James River	2365	4 <sup>iii</sup>	Webster	Nutrients, Unknown
Kelley Branch	1016	1	Boone	Sediment
Lake St. Louis	7054	525	St. Charles	Chlordane
Little Muddy Creek	856	0.7	Pettis	Temperature
Little Muddy Creek, Tributary to (Tyson's Branch)	3490	0.4	Pettis	Temperature
Little Sac River	1381	27	Dade	Fecal Coliform
Little Sugar Creek	3249	11	McDonald	Nutrients
Little Tarkio Creek	248	17.5	Holt	Sediment
Lamar Lake	7356	180	Barton	Nutrients
Middle Fork Grand River <sup>iv</sup>	468	25	Gentry	Sediment
Middle Fork Salt River	121	49	Monroe	Sediment
Middle Fork Tebo Creek	1284	5.5	Henry	Sulfate
Middle Fork Tebo Creek Trib.	1288	1 <sup>v</sup>	Henry	pH, sulfate
Middle Fork Tebo Creek Trib.	1288	1.6	Henry	Sulfate
Middle Indian Creek	3262	3	Newton	Nutrients
Middle Indian Creek	3263	2.5	Newton	Nutrients
Main Ditch	2814	5	Butler	BOD, VSS, low DO
Manacle Creek	742	2	Callaway	pH, Sulfate
McDaniel Lake	7236	300	Greene	Nutrients <sup>vi</sup>
McKenzie Creek	2787	0.5	Wayne	pH
Miami Creek	1299	18	Bates	Sediment
Mississippi River	1	165	St. Charles	Chlordane, PCBs
Mississippi River	1707	200.5	Mississippi	Chlordane, PCBs
Mississippi River	3152	124.5	Pemiscot	Chlordane, PCBs
Missouri River	226	179	Jackson	Chlordane, PCBs
Missouri River	356	125	Chariton	Chlordane, PCBs
Missouri River	701	129	Gasconade	Chlordane, PCBs
Missouri River	1604	100	St. Louis	Chlordane, PCBs
Monegaw Creek	1234	3	St. Clair	Sulfate

<sup>iii</sup> The James River (WBIDs 2347, 2362, 2365) was listed in 1998 as impaired by nutrients and unknown pollutants. The original listing did not provide a legal description but noted that a total of 59 miles were affected. The 2002 303(d) list included more descriptive information about the impaired segments, but the total listed length was slightly reduced to 58.5 miles. In the EPA-approved TMDL, the total length of impaired segments was noted as 58 miles, but the legal descriptions in the TMDL were consistent with the classified segments in Missouri's WQS regulations. Additionally, the TMDL states that the limits targeted at nutrient reduction "apply to all classified streams and rivers that feed into impaired segments of the James River. Despite the slight changes in what has been noted as the total length of impairment, the TMDL continues to apply to the classified segments.

<sup>iv</sup> EPA incorrectly listed the name of this water body as Main Fork Grand River in the December 2003 *Revised US EPA Consolidated 2002 Missouri 303(d) List*.

<sup>v</sup> On the 1998 list, the Tributary to Middle Fork Tebo Creek was listed as impaired by both pH and sulfate for 2.0 miles. The data collected for the development of the EPA-approved TMDL indicated the length of the impairment for both pH and sulfate was 1.0 mile.

<sup>vi</sup> McDaniel Lake was listed on the 1998 Section 303(d) list as impaired by algae. In 2002, EPA approved the change in pollutant listing from algae to nutrients. The TMDL notes the pollutant as algae and targets a reduction in nutrients to address the impairment.



<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>
Muddy Creek	855	1 <sup>vii</sup>	Pettis	BOD
Mussel Fork Creek	674	29	Macon	Sediment
North Fabius River	56	82	Marion	Sediment
North Fork Spring River	3188	51.5	Jasper	Sediment
North Indian Creek	3260	5	Newton	Nutrients
North Moreau Creek	942	10	Moniteau	NFR, Ammonia, CBOD
Old Channel Little River	3041	39.5	New Madrid	Sediment
Patterson Creek	3268	2	McDonald	Nutrients
Piney Creek	2614	0.1	Oregon	Chlorine
Pleasant Hill Lake	7211	115	Cass	Chlordane
Rock Creek	1714	2	Jefferson	CBOD, Ammonia
Rocky Fork	1014	0.5	Boone	Sediment
Rush Creek <sup>viii</sup>	278	0.2	Platte	BOD, NFR
Saline Creek	2190	2 <sup>ix</sup>	Jefferson	BOD, Ammonia
Saline Creek	2859	0.5	Madison	Nickel, Cobalt
South Fork Blackwater River	921	5	Johnson	Sediment
South Indian Creek	3259	9	Newton	Nutrients
South Wyaconda River	50	9	Clark	Sediment
Second Nicolson Creek	1319	3	Barton	Sulfate
Shoal Creek	3230	13.5	Newton	Fecal Coliform
Spillway Ditch	3134	13.5	New Madrid	Sediment
Spring Fork Lake	7187	178	Pettis	Nutrients
St. Francis River	2835	3	St. Francois	BOD, Ammonia
Sugar Creek	686	2.7	Randolph	pH
Third Fork Platte River <sup>x</sup>	327	31.5	Buchanan	Sediment

<sup>vii</sup> MDNR placed Muddy Creek on the 303(d) list in 1998, noting that 33 miles were “affected” by BOD. The EPA-approved TMDL explains that the listing was based on fish kills associated with discharges from the Sedalia WWTP during low flow and that the affected area is limited to one mile below the plant’s discharge. As such, EPA believes that, despite the discrepancy in the mileage, the approved TMDL addresses the impairment for which Muddy Creek was originally listed.

<sup>viii</sup> MDNR placed Rush Creek on the 303(d) list in 1998, noting that 4 miles were “affected” by BOD, NFR. The EPA-approved TMDL explains that the listing was based on objectionable bottom deposits noted in surveys below the discharge of the El Dorado WWTP and that the affected area is limited to 0.2 miles below the plant’s discharge. As such, EPA believes that, despite the discrepancy in the mileage, the approved TMDL addresses the impairment for which Rush Creek was originally listed.

<sup>ix</sup> MDNR placed Saline Creek on the 303(d) list in 1994, noting that 3 miles were impaired by BOD and ammonia from sewage. The 1998 and 2002 lists note 2.0 miles and 3.2 miles as impaired, respectively. The EPA-approved TMDL explains that the sources of impairment were two WWTPs and that the impaired segment was 2.0 miles in length. Despite the mileage discrepancies among the lists, EPA believes the approved TMDL addresses the sources of the impairment for which Saline Creek was originally listed.

<sup>x</sup> The original listing of Third Fork Platte River identified WBID 327, which had a classified length of 31.5 miles. Since the time of the listing, Missouri revised the segmentation of Third Fork Platte River into two subsegments of 25 and 7.5 miles for a total of 32.5 miles. Although the total length has increased, the endpoints remain the same. Missouri is continually trying to improve the accuracy of the length measurements of its classified waters. As noted in EPA’s February 20, 2007 letter to MDNR, Missouri has explained that use of more precise measurement tools results in increased segment lengths, despite the fact that the legal descriptions do not change. Because the regulatory revision resulted from increased measuring precision and not an actual change in the protection afforded to the classified segment, the TMDL continues to apply to the entire classified segment.

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>
Trace Creek	2850	1	Madison	pH
Troublesome Creek	73	3.5	Marion	Sediment
Turkey Creek	3216	3.5	Jasper	Zinc
Turkey Creek	3217	5	Jasper	Zinc
Turkey Creek	3282	1.5	St. Francois	BOD, VSS
West Fork (Little) Medicine Creek <sup>xi</sup>	623	40	Grundy	Sediment
West Fork Sni-a-Bar Creek	400	2	Jackson	BOD, VSS
West Fork Tebo Creek	1292	7	Henry	Sulfate
Whetstone Creek (E. Whetstone Creek)	1505	2	Wright	BOD

### C.2. Category 4B – Waters with EPA-Approved PIL of TMDLs

The water bodies in Table 3 are appropriate for placement in Category 4B as they have an EPA-approved PIL that is expected to result in the attainment of WQS within a reasonable period of time. Each PIL has a site-specific NPDES permit as the other pollution control requirement that is stringent enough to implement the applicable WQS, pursuant to 40 CFR § 130.7(b)(1)(iii), and as such, EPA approves the removal of these waters from the Section 303(d) list.

Table 3. Water bodies with EPA-approved PIL of TMDLs, which are appropriate for placements in Category 4B.

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi)</b>	<b>County</b>	<b>Pollutant</b>	<b>Source</b>
East Brush Creek	811	1	Moniteau	BOD, NFR	California N. WWTP
Elkhorn Creek	189	2	Montgomery	BOD, NVSS	Montgomery City WWTP
Gabriel Creek <sup>xii</sup>	0883	2.3	Morgan	BOD, NFR	2 Stover WWTPs
Horseshoe Creek	3413	3.1	Jackson	BOD, Ammonia	2 Oak Grove Lagoons
L. Beaver Creek	1529	0.1	Phelps	VSS	Rolla SW WWTP
Red Oak Creek	2038	2	Gasconade	VSS	Owensville WWTP
Red Oak Creek Trib.	3360	0.5	Gasconade	VSS	Owensville WWTP
Red Oak Creek Trib.	3361	0.5	Gasconade	VSS	Owensville WWTP
Rocky Branch	3326	0.4	Clay	BOD	KC, Rocky Br. WWTP
Stockton Branch	1361	1.7	Cedar	VSS	Stockton WWTP

<sup>xi</sup> Water Body Name: This water body (WBID 623) was listed in 1998 and 2002 as Little Medicine Creek. West Fork Medicine Creek is the name of the classified segment as described in Missouri's WQS (10 CSR 20-7.031(Table H)).

Pollutant: WBID 623 was previously listed as impaired by sediment. EPA developed and established a TMDL to address the sediment impairment and, as such, West Fork Medicine Creek is appropriate for delisting and placement in Category 4A for sediment. Missouri has decided to include West Fork Medicine Creek on its 2004/2006 Section 303(d) list as impaired by unknown pollutant(s). See section B.1 of this document.

<sup>xii</sup> Missouri completed and submitted the proper documentation for a PIL for Gabriel Creek. This occurred after Missouri submitted its 303(d) list to EPA for reviews. EPA reviewed and approved the PIL on July 27, 2007. EPA believes this water body is appropriate for Category 4B because a state pollution control requirement is stringent enough to implement the applicable WQS, and as such, hereby approves the removal of the this water body from Missouri's 303(d) list.

Water Body Name	WBID	Length (mi)	County	Pollutant	Source
Straight Fork	959	1.1	Morgan	VSS	Versailles WWTP
Walnut Creek	1339	1	Cedar	BOD, VSS	El Dorado Springs WWTP

### C.3. Other Waters EPA Approves for Delisting

The water bodies listed in Table 4 are appropriate for delisting because Missouri has demonstrated “good cause” for removing each of the water bodies from the State’s 303(d) list, consistent with 40 CFR § 130.7(b)(6). As such, EPA is approving the removal of these water bodies and/or pollutants from the 2004/2006 Section 303(d) list.

**Manganese and Iron Criteria:** Missouri revised its WQS, deleting the iron and manganese criteria for the protection of drinking water supplies. Consistent with the CWA, EPA approved the deletion of the iron and manganese criteria applicable to protect the drinking water supply use. As such, these criteria no longer apply. For a detailed explanation of EPA’s approval of this WQS revision, see the enclosure to EPA’s April 28, 2006 letter to Doyle Childers.

**Cyanazine:** Edina Reservoir, Labelle Lake #2, Lewiston Reservoir, and Monroe City Route J Lake were on Missouri’s 2002 Section 303(d) list as impaired by cyanazine. Missouri decided not to include these waters in the 2004/2006 list, citing the lack of a water quality criterion. Missouri’s original listing was based on the federal health advisory level of 0.001 mg/L for the protection of drinking water. EPA reviewed the readily available data to determine if the State’s decision to not list these reservoirs on its 2004/2006 list is consistent with the CWA and federal regulations. With its submission, MDNR provided water quality data for cyanazine. EPA evaluated the data against the health advisory level and noted significant decreases in the concentrations of cyanazine following the national cancellation of the pesticide’s registration, which was effective December 31, 1999. See 65 FR 771 (January 6, 2000). Prior to the cancellation, the annual average concentrations were two to seven times greater than the federal health advisory level. Data collected after the cancellation show that the concentrations of cyanazine have dropped below the health advisory level, indicating that the lakes are supporting their designated drinking water supply uses. As such, EPA approves the State’s decision to not list Edina Reservoir, Labelle Lake #2, Lewiston Reservoir, and Monroe City Route J Lake as impaired by cyanazine. See Table 4.

Table 4. Water bodies for which the State has demonstrated “good cause” for delisting, consistent with 40 CFR § 130.7(b). EPA approves the removal of these water bodies and pollutant combinations from the 2004/2006 Section 303(d) list.

Water Body Name	WBID	Length (mi) /Area (acres)	County	Pollutant	Comments
Edina Reservoir	7026	51	Knox	Atrazine	Data indicate attainment with criterion.
Edina Reservoir	7026	51	Knox	Cyanazine	Recent data indicates designated use is supported.

<b>Water Body Name</b>	<b>WBID</b>	<b>Length (mi) /Area (acres)</b>	<b>County</b>	<b>Pollutant</b>	<b>Comments</b>
Fellows Lake	7237	820	Greene	Nutrients	Data indicate downward trend and indicate attainment with WQS.
Fox River	0037	12	Clark	Manganese	Criterion no longer applies.
Harry S. Truman Lake	7207	10000	Benton	Manganese	Manganese criterion no longer applies.
Indian Camp Creek	0212	0.3	Warren	Ammonia	Data indicate attainment with criterion.
Labelle Lake #2	7023	112	Lewis	Atrazine	Data indicate attainment with criterion.
Labelle Lake #2	7023	112	Lewis	Cyanazine	Recent data indicates designated use is supported.
Lewistown Reservoir	7020	29	Lewis	Cyanazine	Recent data indicates designated use is supported.
Middle Fabius River	0063	57	Lewis	Manganese	Criterion no longer applies.
Monroe City Route J Lake	7031	94	Ralls	Atrazine	Data indicate attainment with criterion.
Monroe City Route J Lake	7031	94	Ralls	Cyanazine	Recent data indicates designated use is supported.
Salt River	0103	10	Pike	Iron	Criterion no longer applies.
Salt River	0103	10	Pike	Manganese	Criterion no longer applies.
Salt River	0091	29	Ralls	Manganese	Criterion no longer applies.
South Wyaconda River	0050	9	Clark	Manganese	Criterion no longer applies.
Vandalia Lake	7032	37	Pike	Atrazine	Data indicate attainment with criterion.
Wyaconda River	0046	8	Lewis	Manganese	Criterion no longer applies.